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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 39	May 16	CHEMREACT will be removed from STN
NEWS 40	May 19	Simultaneous left and right truncation added to WSCA
NEWS 41	May 19	RAPRA enhanced with new search field, simultaneous left and right truncation
NEWS 42	Jun 06	Simultaneous left and right truncation added to CBNB

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 NEWS 43  Jun 06  PASCAL enhanced with additional data

 NEWS EXPRESS  April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
               MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 16:41:44 ON 06 JUN 2003

=> file medline, uspatful, dgene, embase, scisearch, fsta, wpids
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'MEDLINE' ENTERED AT 16:42:06 ON 06 JUN 2003

FILE 'USPATFULL' ENTERED AT 16:42:06 ON 06 JUN 2003
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FILE 'WPIDS' ENTERED AT 16:42:06 ON 06 JUN 2003
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=> s gfp
L1        25020 GFP

=> s green fluorescent protein
L2        35464 GREEN FLUORESCENT PROTEIN

=> s l1 and l2
L3        19179 L1 AND L2

=> s f64L
L4          238 F64L

=> s E222G
L5           47 E222G
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=> s l4 and l2
L6          230 L4 AND L2

=> s l4 and l1
L7          230 L4 AND L1

=> s l6 and l7
L8          226 L6 AND L7

=> s l1 and l5
L9           44 L1 AND L5

=> s l2 and l5
L10          47 L2 AND L5

=> s l10 and l9
L11          44 L10 AND L9

=> s l11 and l8
L12          35 L11 AND L8

=> s l12 and stokes shift
L13           8 L12 AND STOKES SHIFT

=> d l13 ti abs ibib tot

L13  ANSWER 1 OF 8  USPATFULL
TI     Long wavelength engineered fluorescent proteins
AB     Engineered fluorescent proteins, nucleic acids encoding them and methods
       of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:        2003:51221  USPATFULL
TITLE:                   Long wavelength engineered fluorescent proteins
INVENTOR(S):             Tsien, Roger Y., La Jolla, CA, UNITED STATES
                         Remington, James S., Eugene, OR, UNITED STATES
                         Cubitt, Andrew B., San Diego, CA, UNITED STATES
                         Heim, Roger, Del Mar, CA, UNITED STATES
                         Ormo, Mats F., Huddinge, SWEDEN
PATENT ASSIGNEE(S):      The Regents of the University of California (U.S.
                         corporation)

                              NUMBER        KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 2003036178      A1   20030220
APPLICATION INFO.:       US 2002-71976      A1   20020205  (10)
RELATED APPLN. INFO.:    Continuation of Ser. No. US 1999-465142, filed on 16
                         Dec 1999, GRANTED, Pat. No. US 6403374 Continuation of
                         Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED,
                         Pat. No. US 6077707 Continuation of Ser. No. US
                         1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US
                         6054321 Continuation-in-part of Ser. No. US
                         1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US
                         6124128

                                NUMBER         DATE
                         ------------------ --------
PRIORITY INFORMATION:    US 1996-24050P     19960816 (60)
DOCUMENT TYPE:           Utility
FILE SEGMENT:            APPLICATION
LEGAL REPRESENTATIVE:    GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE
                         DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189
NUMBER OF CLAIMS:        1
EXEMPLARY CLAIM:         1
```

NUMBER OF DRAWINGS: 53 Drawing Page(s)
LINE COUNT: 2098
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 2 OF 8 USPATFULL
TI LONG WAVELENGTH ENGINEERED FLUORESCENT PROTEINS
AB Engineered fluorescent proteins, nucleic acids encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:17397 USPATFULL
TITLE: LONG WAVELENGTH ENGINEERED FLUORESCENT PROTEINS
INVENTOR(S): Wachter, Rebekka M., Creswell, OR, UNITED STATES
Remington, S. James, Eugene, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003013149	A1	20030116
APPLICATION INFO.:	US 2000-575847	A1	20000519 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED, Pat. No. US 6077707 Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US 6054321 Continuation of Ser. No. US 1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US 6124128

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Lisa A Haile Ph D, Gray Cary Ware & Freidenrich LLP, 4365 Executive Drive, Suite 1100, San Diego, CA, 92121-2133
NUMBER OF CLAIMS: 187
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 63 Drawing Page(s)
LINE COUNT: 3752
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 3 OF 8 USPATFULL
TI Novel fluorescent proteins
AB A **GFP** with an **F64L** mutation and an **E222G** mutation is provided. This **GFP** has a bigger **Stokes shift** compared to other GFPs making it very suitable for high throughput screening due to a better resolution. This **GFP** also has an excitation maximum between the yellow **GFP** and the cyan **GFP** allowing for cleaner band separation when used together with those GFPs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:314712 USPATFULL
TITLE: Novel fluorescent proteins
INVENTOR(S): Bjorn, Sara Petersen, Lyngby, DENMARK
Pagliaro, Len, Copenhagen K, DENMARK
Thastrup, Ole, Birkerod, DENMARK

Appl.

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002177189	A1	20021128
APPLICATION INFO.:	US 2001-887784	A1	20010619 (9)

	NUMBER	DATE

PRIORITY INFORMATION: DK 2000-953 20000619
DK 2001-739 20010510
US 2000-212681P 20000620 (60)
US 2001-290170P 20010510 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 1225
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 4 OF 8 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB Engineered fluorescent proteins, nucleic acids encoding them and methods of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:136818 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo , Mats F., Huddinge, SWEDEN
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6403374	B1	20020611
APPLICATION INFO.:	US 1999-465142		19991216 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-974737, filed on 19 Nov 1997, now patented, Pat. No. US 6077707
Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, now patented, Pat. No. US 6054321
Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996, now patented, Pat. No. US 6124128

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 55 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 2152
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 5 OF 8 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB Engineered fluorescent proteins, nucleic acids encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:128162 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Cubitt, Andrew B., San Diego, CA, United States

Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, Sweden
Remington, S. James, Eugene, OR, United States
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)
Aurora Biosciences, La Jolla, CA, United States (U.S. corporation)
The University of Oregon, Eugene, OR, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6124128		20000926
APPLICATION INFO.:	US 1996-706408		19960830 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
ASSISTANT EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 9
NUMBER OF DRAWINGS: 55 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 1735
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 6 OF 8 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB This invention provides functional engineered fluorescent proteins with varied fluorescence characteristics that can be easily distinguished from currently existing green and blue fluorescent proteins. In one aspect, the invention provides nucleic acids, expression vectors and recombinant host cells comprising nucleotide sequences encoding functional engineered fluorescent proteins comprising aromatic substitutions at position 66 and a folding mutation. In one embodiment the invention provides for fluorescent proteins containing an aromatic substitution at Thr 203.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:77223 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, Sweden
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077707		20000620
APPLICATION INFO.:	US 1997-974737		19971119 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997 which is a continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Nashed, Nashaat
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 17

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 53 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 2162
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 7 OF 8 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB This invention provides functional engineered fluorescent proteins with varied fluorescence characteristics that can be easily distinguished from currently existing green and blue fluorescent proteins. In one embodiment the invention provides for the three dimensional structure and atomic coordinates of an Aequorea **green fluorescent protein** and methods for their use. In one embodiment, this invention provides a computational method of modeling the three dimensional structure of any other fluorescent protein based on the three dimensional structure of an Aequorea **green fluorescent protein**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:50571 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, Sweden
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054321		20000425
APPLICATION INFO.:	US 1997-911825		19970815 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Nashed, Nashaat
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 36 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 2254
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 8 OF 8 WPIDS (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation.
AN 2002-098224 [13] WPIDS
AB WO 200198338 A UPAB: 20020226
NOVELTY - A fluorescent protein (I), **F64L**, **E222G**-**GFP** derived from **green fluorescent protein** (**GFP**) or its analog comprising a mutated amino acid at position 1, which lies before a chromophore and a mutation at position 222 having a glutamic acid, and when expressed in cells incubated at 30 deg. C, has an excitation maximum at a higher wavelength and increased fluorescence, compared to wild-type **GFP**, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the

following:

(1) a fusion compound (II) consisting of (I) linked to a polypeptide;

(2) a nucleotide sequence (III) coding for (I);

(3) a host cell (IV) transformed with (III); and

(4) preparation of (I), comprising culturing (IV) under expression conditions, and recovering the polypeptide.

USE - (I) is useful in an in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution (claimed). (I) is useful in studying cellular functions in living cells; as a protein tag in living and fixed cells, organelle tag, a secretion marker, genetic reporter or as protein tag in transgenic animals. (I) is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker and as a marker to be used in combination with fluorescence activated cell sorting (FACS), as real-time probe working at near physiological concentration. The novel proteins can also be used as reporters to monitor live/dead biomass of organisms, such as fungi. (I) is useful as markers useful in transcriptional and translational fusions for performing transposon vector mutagenesis. Transposons encoding (I) are useful for screening promoters, and transposon vectors encoding (I) can be used for tagging plasmids and chromosomes. (I) is useful as a reporter for bacterial detection, by introducing (I) into the genome of bacteriophages. Further, by engineering (I) into genome of a phage, is useful for designing diagnostic tool.

ADVANTAGE - The increased **stokes shift** of **F64L, E222G-GFP** results in increased spectral resolution of its excitation and emission peaks. This enables more complete band separation using a conventional dichroic beam-splitter, and decreased background signal for assays incorporating **F64L, E222G-GFP** relative to assays based on EGFP (**F64L, S65T-GFP**). **F64L, E222G-GFP** fluorescence can be excited by conventional light source using narrow band filters, or commercially available laser producing lines at 472 nm. In either case, the greater **stokes shift** of **F64L, E222G-GFP** results in lower cross-talk from excitation light to the toe of the emission spectrum. The excitation maximum of **F64L, E222G-GFP** falls midway between those of the cyan fluorescent protein variant (ECFP, excitation max about 433 nm) and the yellow fluorescent protein variant (EYFP, excitation max about 513 nm). Because of this, it will allow for cleaner band separation when used together with those probes, and it is optimized for assay applications in which several **GFP**-labeled components will be multiplexed. Due to strong fluorescence the novel proteins are suitable tags for proteins present at low concentrations. Since no substrate is needed and visualization of the cells does not damage the cells dynamic analysis can be performed. More than one organelle can be tagged and visualized simultaneously in living cells, e.g. the endoplasmic reticulum and the cytoskeleton. By fusion of **F64L-E222G-GFP** to a signal peptide or a peptide to be secreted, secretion may be followed on-line in living cells. A precondition for that is that the maturation of a detectable number of novel fluorescent protein molecules occurs faster than the secretion. Due to strong fluorescence of the novel proteins, they are suitable as tags for proteins and gene expression, since the signal to noise ratio is significantly improved compared to the prior art proteins such as wild-type **GFP**. By co-expressing two of the novel proteins, the one targeted to an organelle and the other expressed in the cytosol, it is possible to calculate the relative leakage of the cytosolic protein and use that as a measure of cell integrity, and expression of the novel proteins in cells allows easy detection of changes in cell morphology, e.g. blebbing, caused by cytotoxic agents or apoptosis. The morphological changes are difficult to visualize in intact cells without the use of fluorescent probes. Due to the increased brightness of the novel proteins the quality of the cell detection and sorting can be significantly improved. Since **F64L-E222G-GFP** is significantly brighter than wild-type

GFP and **F64L-GFP** when expressed in cells at 37 deg. C and excited with light at about 490 nm, the concentration needed for visualization can be lowered. Target sites for enzymes engineered into the novel proteins e.g. **F64L-E222G-GFP**, can therefore be present in the cell at low concentrations in living cells. This is important for the two reasons, i.e. the probe must interfere as little as possible with the intracellular process being studied; the translational and transcriptional apparatus should be stressed minimally. By constitutive expression of **F64L-E222G-GFP** in fungi the viable biomass will light up.

Dwg.0/5

ACCESSION NUMBER: 2002-098224 [13] WPIDS
DOC. NO. CPI: C2002-030678
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation.
DERWENT CLASS: B04 D16
INVENTOR(S): BJORN, S P; PAGLIARO, L; THASTRUP, O
PATENT ASSIGNEE(S): (BIOI-N) BIOIMAGE AS; (BJOR-I) BJORN S P; (PAGL-I) PAGLIARO L; (THAS-I) THASTRUP O
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001098338	A2	20011227	(200213)*	EN	41
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001079669	A	20020102	(200230)		
US 2002177189	A1	20021128	(200281)		
EP 1299414	A2	20030409	(200325)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2001098338	A2		WO 2001-EP6848	20010618
AU 2001079669	A		AU 2001-79669	20010618
US 2002177189	A1	Provisional	US 2000-212681P	20000620
		Provisional	US 2001-290170P	20010510
			US 2001-887784	20010619
EP 1299414	A2		EP 2001-957861	20010618
			WO 2001-EP6848	20010618

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001079669	A	Based on	WO 200198338
EP 1299414	A2	Based on	WO 200198338

PRIORITY APPLN. INFO: US 2001-290170P 20010510; DK 2000-953 20000619; US 2000-212681P 20000620; DK 2001-739 20010510

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=> d his

     (FILE 'HOME' ENTERED AT 16:41:44 ON 06 JUN 2003)

     FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, SCISEARCH, FSTA, WPIDS' ENTERED
     AT 16:42:06 ON 06 JUN 2003
L1         25020 S GFP
L2         35464 S GREEN FLUORESCENT PROTEIN
L3         19179 S L1 AND L2
L4           238 S F64L
L5            47 S E222G
L6           230 S L4 AND L2
L7           230 S L4 AND L1
L8           226 S L6 AND L7
L9            44 S L1 AND L5
L10           47 S L2 AND L5
L11           44 S L10 AND L9
L12           35 S L11 AND L8
L13            8 S L12 AND STOKES SHIFT

=> d l12 ti abs ibib tot

L12  ANSWER 1 OF 35  USPATFULL
TI     Long wavelength engineered fluorescent proteins
AB     Engineered fluorescent proteins, nucleic acids encoding them and methods
       of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:        2003:51221  USPATFULL
TITLE:                   Long wavelength engineered fluorescent proteins
INVENTOR(S):             Tsien, Roger Y., La Jolla, CA, UNITED STATES
                         Remington, James S., Eugene, OR, UNITED STATES
                         Cubitt, Andrew B., San Diego, CA, UNITED STATES
                         Heim, Roger, Del Mar, CA, UNITED STATES
                         Ormo, Mats F., Huddinge, SWEDEN
PATENT ASSIGNEE(S):      The Regents of the University of California (U.S.
                         corporation)

                              NUMBER        KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 2003036178      A1   20030220
APPLICATION INFO.:       US 2002-71976      A1   20020205  (10)
RELATED APPLN. INFO.:    Continuation of Ser. No. US 1999-465142, filed on 16
                         Dec 1999, GRANTED, Pat. No. US 6403374 Continuation of
                         Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED,
                         Pat. No. US 6077707 Continuation of Ser. No. US
                         1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US
                         6054321 Continuation-in-part of Ser. No. US
                         1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US
                         6124128

                                NUMBER         DATE
                         ------------------ --------
PRIORITY INFORMATION:    US 1996-24050P     19960816 (60)
DOCUMENT TYPE:           Utility
FILE SEGMENT:            APPLICATION
LEGAL REPRESENTATIVE:    GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE
                         DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189
NUMBER OF CLAIMS:        1
EXEMPLARY CLAIM:         1
NUMBER OF DRAWINGS:      53 Drawing Page(s)
LINE COUNT:              2098
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

L12 ANSWER 2 OF 35 USPATFULL
TI LONG WAVELENGTH ENGINEERED FLUORESCENT PROTEINS
AB Engineered fluorescent proteins, nucleic acids encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:17397 USPATFULL
TITLE:	LONG WAVELENGTH ENGINEERED FLUORESCENT PROTEINS
INVENTOR(S):	Wachter, Rebekka M., Creswell, OR, UNITED STATES Remington, S. James, Eugene, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003013149	A1	20030116
APPLICATION INFO.:	US 2000-575847	A1	20000519 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED, Pat. No. US 6077707 Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US 6054321 Continuation of Ser. No. US 1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US 6124128

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	Lisa A Haile Ph D, Gray Cary Ware & Freidenrich LLP, 4365 Executive Drive, Suite 1100, San Diego, CA, 92121-2133
NUMBER OF CLAIMS:	187
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	63 Drawing Page(s)
LINE COUNT:	3752

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 3 OF 35 USPATFULL
TI Novel fluorescent proteins
AB A **GFP** with an **F64L** mutation and an **E222G** mutation is provided. This **GFP** has a bigger Stokes shift compared to other GFPs making it very suitable for high throughput screening due to a better resolution. This **GFP** also has an excitation maximum between the yellow **GFP** and the cyan **GFP** allowing for cleaner band separation when used together with those GFPs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:314712 USPATFULL
TITLE:	Novel fluorescent proteins
INVENTOR(S):	Bjorn, Sara Petersen, Lyngby, DENMARK Pagliaro, Len, Copenhagen K, DENMARK Thastrup, Ole, Birkerod, DENMARK

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002177189	A1	20021128
APPLICATION INFO.:	US 2001-887784	A1	20010619 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DK 2000-953	20000619
	DK 2001-739	20010510
	US 2000-212681P	20000620 (60)
	US 2001-290170P	20010510 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 1225
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 4 OF 35 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB Engineered fluorescent proteins, nucleic acids encoding them and methods of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:136818 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo , Mats F., Huddinge, SWEDEN
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6403374	B1	20020611
APPLICATION INFO.:	US 1999-465142		19991216 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-974737, filed on 19 Nov 1997, now patented, Pat. No. US 6077707
Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, now patented, Pat. No. US 6054321
Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996, now patented, Pat. No. US 6124128

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 55 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 2152
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 5 OF 35 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB Engineered fluorescent proteins, nucleic acids encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:128162 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, Sweden
Remington, S. James, Eugene, OR, United States
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland,

CA, United States (U.S. corporation)
Aurora Biosciences, La Jolla, CA, United States (U.S. corporation)
The University of Oregon, Eugene, OR, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6124128		20000926
APPLICATION INFO.:	US 1996-706408		19960830 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
ASSISTANT EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 9
NUMBER OF DRAWINGS: 55 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 1735
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 6 OF 35 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB This invention provides functional engineered fluorescent proteins with varied fluorescence characteristics that can be easily distinguished from currently existing green and blue fluorescent proteins. In one aspect, the invention provides nucleic acids, expression vectors and recombinant host cells comprising nucleotide sequences encoding functional engineered fluorescent proteins comprising aromatic substitutions at position 66 and a folding mutation. In one embodiment the invention provides for fluorescent proteins containing an aromatic substitution at Thr 203.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:77223 USPATFULL
TITLE: Long wavelength engineered fluorescent proteins
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, Sweden
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077707		20000620
APPLICATION INFO.:	US 1997-974737		19971119 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997 which is a continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Nashed, Nashaat
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 53 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 2162
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 7 OF 35 USPATFULL
TI Long wavelength engineered fluorescent proteins
AB This invention provides functional engineered fluorescent proteins with varied fluorescence characteristics that can be easily distinguished from currently existing green and blue fluorescent proteins. In one embodiment the invention provides for the three dimensional structure and atomic coordinates of an Aequorea **green fluorescent protein** and methods for their use. In one embodiment, this invention provides a computational method of modeling the three dimensional structure of any other fluorescent protein based on the three dimensional structure of an Aequorea **green fluorescent protein**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2000:50571 USPATFULL
TITLE:	Long wavelength engineered fluorescent proteins
INVENTOR(S):	Tsien, Roger Y., La Jolla, CA, United States Remington, S. James, Eugene, OR, United States Cubitt, Andrew B., San Diego, CA, United States Heim, Roger, Del Mar, CA, United States Ormo, Mats F., Huddinge, Sweden
PATENT ASSIGNEE(S):	The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054321		20000425
APPLICATION INFO.:	US 1997-911825		19970815 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Nashed, Nashaat
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS:	15
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	36 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT:	2254

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 8 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAE17520 Protein DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated

cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is jellyfish **F64L-E222G green fluorescent protein** (**GFP**) mutant.

ACCESSION NUMBER: AAE17520 Protein DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: N-PSDB: AAD28165
DESCRIPTION: *Jellyfish* ***F64L-E222G green fluorescent protein*** (**GFP**) mutant.

considered

L12 ANSWER 9 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAE17519 Protein DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is jellyfish ***F64L green fluorescent protein*** (**GFP**) mutant.

ACCESSION NUMBER: AAE17519 Protein DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green**

fluorescent protein with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: N-PSDB: AAD28164
DESCRIPTION: Jellyfish **F64L green fluorescent protein** (**GFP**) mutant.

L12 ANSWER 10 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAE17518 Protein DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a DNA encoding enhanced **F64L-E222G** jellyfish **green fluorescent protein** (**GFP**) mutant.
ACCESSION NUMBER: AAE17518 Protein DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: N-PSDB: AAD28163

DESCRIPTION: Enhanced **F64L-E222G** jellyfish **green fluorescent protein** mutant.

L12 ANSWER 11 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAE17517 Protein DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is enhanced **F64L** jellyfish **green fluorescent protein** (**GFP**) mutant.
ACCESSION NUMBER: AAE17517 Protein DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: N-PSDB: AAD28162
DESCRIPTION: Enhanced **F64L** jellyfish **green fluorescent protein** mutant.

L12 ANSWER 12 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28181 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The

fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28181 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 1262-bottom PCR primer.

L12 ANSWER 13 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28180 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful

for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28180 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 1261-top PCR primer.

L12 ANSWER 14 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28179 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28179 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620

DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 1260-bottom PCR primer.

L12 ANSWER 15 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28178 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.
ACCESSION NUMBER: AAD28178 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 1259-top PCR primer.

L12 ANSWER 16 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28177 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green**

fluorescent protein (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and
E222G has a bigger compared to other **GFP**'s making it
very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28177 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0328-bottom PCR primer.

L12 ANSWER 17 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28176 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and
E222G has a bigger compared to other **GFP**'s making it
very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational

fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28176 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0327-top PCR primer.

L12 ANSWER 18 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28175 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28175 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.

PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0326-bottom PCR primer.

L12 ANSWER 19 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28174 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.
ACCESSION NUMBER: AAD28174 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0325-top PCR primer.

L12 ANSWER 20 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein

redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -

AN AAD28173 DNA DGENE

AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28173 DNA DGENE

TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -

INVENTOR: Bjorn S P; Pagliaro L; Thastrup O

PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.

PATENT INFO: WO 2001098338 A2 20011227 41p

APPLICATION INFO: WO 2001-EP6848 20010618

PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 2002-098224 [13]

DESCRIPTION: **Green fluorescent protein** plasmid constructing 0318-bottom PCR primer.

L12 ANSWER 21 OF 35 DGENE (C) 2003 THOMSON DERWENT

TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -

AN AAD28172 DNA DGENE

AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker,

and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28172 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0317-top PCR primer.

L12 ANSWER 22 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28171 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28171 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green**

fluorescent protein with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 9841-bottom PCR primer.

L12 ANSWER 23 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28170 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.
ACCESSION NUMBER: AAD28170 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 9840-top PCR primer.

L12 ANSWER 24 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28169 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.
ACCESSION NUMBER: AAD28169 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0226-top PCR primer.

L12 ANSWER 25 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28168 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular

functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28168 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 0225-bottom PCR primer.

L12 ANSWER 26 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28167 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.

ACCESSION NUMBER: AAD28167 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 9860-bottom PCR primer.

L12 ANSWER 27 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28166 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a PCR primer used for constructing jellyfish **green fluorescent protein** (**GFP**) plasmid.
ACCESSION NUMBER: AAD28166 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent

LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
DESCRIPTION: **Green fluorescent protein** plasmid constructing 9859-top PCR primer.

L12 ANSWER 28 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28165 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a DNA encoding jellyfish **F64L-E222G green fluorescent protein** (**GFP**) mutant.
ACCESSION NUMBER: AAD28165 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: P-PSDB: AAE17520
DESCRIPTION: Jellyfish **F64L-E222G green fluorescent protein** (**GFP**) mutant DNA.

L12 ANSWER 29 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28164 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.

The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a DNA encoding jellyfish **F64L green fluorescent protein** (**GFP**) mutant.

ACCESSION NUMBER: AAD28164 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: P-PSDB: AAE17519
DESCRIPTION: Jellyfish **F64L green fluorescent protein** (**GFP**) mutant DNA.

L12 ANSWER 30 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28163 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue.
The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational

fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a DNA encoding enhanced **F64L-E222G** jellyfish **green fluorescent protein** (**GFP**) mutant.

ACCESSION NUMBER: AAD28163 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: P-PSDB: AAE17518
DESCRIPTION: Enhanced **F64L-E222G** jellyfish **green fluorescent protein** mutant DNA.

L12 ANSWER 31 OF 35 DGENE (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -
AN AAD28162 DNA DGENE
AB The invention relates to a fluorescent protein derived from **green fluorescent protein** (**GFP**) or its analogue. The **GFP** containing mutations at **F64L** and **E222G** has a bigger compared to other **GFP**'s making it very suitable for high throughput screening due to better resolution. The fluorescent protein is useful in invitro assays for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution. The fluorescent protein is useful in studying cellular functions in living cells; as protein tags in transgenic animals, living and fixed cells; organelle tags, secretion marker and genetic reporter. The fluorescent protein is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker, and as a marker to be used in combination with fluorescence activated cell sorting (FACS). The novel proteins can also be used as reporters to monitor live or dead biomass of organisms, such as fungi. The fluorescent protein is also useful as markers in transcriptional and translational fusions for performing transposon vector mutagenesis and as a reporter for bacterial detection. Transposons encoding the fluorescent protein are useful for screening promoters and for tagging plasmids and chromosomes. The fluorescent protein engineered into the genome of a phage is useful for designing diagnostic tool. The present sequence is a DNA encoding enhanced **F64L** jellyfish **green fluorescent protein** (**GFP**) mutant.

ACCESSION NUMBER: AAD28162 DNA DGENE
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation -

INVENTOR: Bjorn S P; Pagliaro L; Thastrup O
PATENT ASSIGNEE: (BIOI-N)BIOIMAGE AS.
PATENT INFO: WO 2001098338 A2 20011227 41p
APPLICATION INFO: WO 2001-EP6848 20010618
PRIORITY INFO: DK 2000-953 20000619
US 2000-212681P 20000620
DK 2001-739 20010510
US 2001-290170P 20010510
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-098224 [13]
CROSS REFERENCES: P-PSDB: AAE17517
DESCRIPTION: Enhanced **F64L** jellyfish **green fluorescent protein** mutant DNA.

L12 ANSWER 32 OF 35 WPIDS (C) 2003 THOMSON DERWENT
TI Novel fluorescent protein derived from **green fluorescent protein** useful as a transfection marker, has different excitation spectrum and/or emission spectrum compared with wild-type **green fluorescent protein**.
AN 2003-095652 [09] *WPIDS*
AB GB 2374868 A UPAB: 20030206
NOVELTY - A fluorescent protein (I) derived from **green fluorescent protein** (**GFP**) or any functional **GFP** analog, has an amino acid sequence which is modified by amino acid substitution at position F64, at position S65 or E222, and at position S175 compared with the amino acid sequence of wild-type **GFP**, and has different excitation spectrum and/or emission spectrum compared with wild-type **GFP**, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a fusion compound (II) comprising a protein of interest fused to (I);

(2) a nucleic acid molecule (III) comprising a nucleotide sequence encoding (I) or (II);

(3) an expression vector (IV) comprising suitable expression control sequences operably linked to (III); and

(4) a host cell (V) transformed or transfected with a DNA construct comprising (IV).

USE - (III) is useful for measuring the expression of a protein of interest in a cell, by introducing (III) into a cell, where (III) is operably linked to and under the control of an expression control sequence which moderates expression of the protein of interest, culturing the cell under conditions suitable for the expression of the protein of interest, and detecting the fluorescence emission of **GFP** or functional **GFP** analog. (III) is useful for determining the cellular and/or extracellular localization of a protein of interest. (III) is also useful for comparing the effect of one or more test substance(s) on the expression and/or localization of one or more different protein(s) of interest in a cell. The method involves:

(a) introducing into a cell, (III) operably linked to and under the control of a first expression control sequence and optionally fused to a nucleotide sequence encoding a fusion protein of interest, and optionally, at least one different nucleic acid molecule encoding a protein reporter molecule fused to a different protein of interest, where the nucleic acid molecule is operably linked to and under the control of a second expression control sequence, and the protein reporter molecule has or is capable of generating an emission signal which is spectrally distinct from that of ***GFP*** or functional ***GFP*** analog;

(b) culturing the cells under conditions suitable for the expression of the protein(s) of interest in the presence and absence of the test substance(s);

(c) determining the expression and/or localization of the protein(s) in the cells by detecting the fluorescence emission by optical means; and

(d) comparing the fluorescence emission obtained in the presence and absence of the test substance(s).

The samples of the cells in a fluid medium are introduced into separate vessels for each of the test substances to be studied (all claimed).

(I) is useful as a non-toxic marker for selection of transfected cells, as a protein label in living and fixed cells, as a marker in cell or organelle fusion, for visualizing translocation of intracellular proteins to a specific organelle, as a secretion marker, as genetic reporter or protein tag for protein and gene expression in transgenic animals, as a cell or organelle integrity marker, as a transfection marker, as a marker to be used in combination with fluorescent activated cell sorting (FACS), as real-time probe working at near physiological concentrations, for performing transposon vector mutagenesis, and as a reporter for bacterial detection.

ADVANTAGE - (I) exhibits enhanced fluorescence relative to wild type **GFP**, when expressed in non-homologous cells at temperatures above 30 deg. C, and excited at 490 nm. (I) detects **GFP** reporters in mammalian cells at lower levels of expression with increased sensitivity relative to wild type **GFP**.

Dwg.0/7

ACCESSION NUMBER: 2003-095652 [09] WPIDS
DOC. NO. NON-CPI: N2003-075841
DOC. NO. CPI: C2003-024324
TITLE: Novel fluorescent protein derived from **green fluorescent protein** useful as a transfection marker, has different excitation spectrum and/or emission spectrum compared with wild-type **green fluorescent protein**.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): JONES, A E; MICHAEL, N P; STUBBS, S L J; THOMAS, N
PATENT ASSIGNEE(S): (AMSH) AMERSHAM BIOSCIENCES UK LTD; (AMSH) AMERSHAM PHARMACIA BIOTECH UK LTD
COUNTRY COUNT: 97
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2374868	A	20021030	(200309)*		52
WO 2002085936	A1	20021031	(200309)	EN	

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2374868	A	GB 2001-23288	20010928
WO 2002085936	A1	WO 2001-GB4363	20010928

PRIORITY APPLN. INFO: GB 2001-9858 20010423

L12 ANSWER 33 OF 35 WPIDS (C) 2003 THOMSON DERWENT
TI Method for detecting a compound modulation useful to assay for protein interaction involves detecting the intracellular distribution of a detectable group conjugated with a protein.
AN 2002-195749 [25] WPIDS
AB WO 200203072 A UPAB: 20020418
NOVELTY - A method for detecting a compound modulation of an intracellular

protein interaction involves providing a cell comprising a first protein conjugated to an anchor protein; detecting the intracellular distribution of the detectable group; and repeating the detection step with and without the compound.

DETAILED DESCRIPTION - A method for detecting a compound modulation of an intracellular protein interaction involves:

(a) providing a cell that contains a first heterologous conjugate comprising a first protein conjugated to a detectable group (preferably **GFP**) and a second heterologous conjugate comprising a second protein conjugated to an anchor protein that can specifically bind to an internal structure within the cell;

(b) detecting the intracellular distribution of the detectable group; and

(c) repeating step b) with and without the compound. The intracellular distribution of the detectable group mimics the intracellular distribution of the anchor-protein indicates the binding between the two proteins. A change in intracellular distribution of the detectable group with and without the compound indicates of the compound modulating the protein interaction.

INDEPENDENT CLAIMS are also included for the following:

(1) measuring a change in mobility of a cellular component caused by an influence involving:

(i) contacting cells comprising luminophore coupled to the cellular component, with and without the influence;

(ii) adding extraction buffer to the cells of step (i); and

(iii) measuring the light emitted from the luminophore from the cells of step (ii) where the extraction buffer comprises a cellular fixation and permeabilization agent and the difference in light intensity emitted from the cells with and without the influence indicates a difference in the mobility of the cellular component caused by the influence;

(2) optimizing the extraction buffer involving:

(i) contacting or incubating with the reference compound a mechanically intact living cell(s) comprising luminophore;

(ii) Contacting or incubating without the reference compound, cells similar to the cells in (i);

(iii) adding extraction buffer to the cells in (i) and (ii);

(iv) measuring the light emitted from the luminophore;

(v) repeating steps (i)-(iv) with extraction buffers with various concentrations of cellular fixation agent and cellular permeabilization agent; and

(vi) calculating the signal to noise (s/n) ratio as (fluorescence in stimulated cells minus the fluorescence in non-stimulated cells) divided by the fluorescence in the non-stimulated cells times 100% for each of the extraction buffers tested in step (v). The optimized extraction buffer is the buffer associated with the highest (s/n) ratio. The luminophore is capable of being redistributed in a manner which is related to the influence of the substance and/or being associated with a component which is capable of being redistributed in a manner which is related to the influence of the substance; and

(3) the extraction buffer.

USE - To assay for protein interactions in living cells; for the development of new pharmaceutical agents capable of disrupting or engaging partners in an interaction; to modulate the flow of information through signaling pathways and thus finds application in many areas of human and animal health care.

ADVANTAGE - The method does not rely on covalent interactions nor that the components need have a specific orientation upon interaction. The method is very sensitive and allows for measurement of even low affinity interactions.

Dwg.0/20

ACCESSION NUMBER: 2002-195749 [25] WPIDS
DOC. NO. NON-CPI: N2002-148732
DOC. NO. CPI: C2002-060482
TITLE: Method for detecting a compound modulation useful to

assay for protein interaction involves detecting the intracellular distribution of a detectable group conjugated with a protein.

DERWENT CLASS: B04 C07 S03

INVENTOR(S): BJORN, S P; HAGEL, G; NIELSEN, S J; TERRY, B R; THASTRUP, O

PATENT ASSIGNEE(S): (BIOI-N) BIOIMAGE AS

COUNTRY COUNT: 97

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002003072	A2	20020110	(200225)*	EN	89

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001070481	A	20020114	(200237)		
EP 1301796	A2	20030416	(200328)	EN	

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002003072	A2	WO 2001-DK466	20010703
AU 2001070481	A	AU 2001-70481	20010703
EP 1301796	A2	EP 2001-949277	20010703
		WO 2001-DK466	20010703

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001070481	A	Based on	WO 200203072
EP 1301796	A2	Based on	WO 200203072

PRIORITY APPLN. INFO: DK 2001-775 20010516; DK 2000-1041 20000704; DK 2000-775 20010516

L12 ANSWER 34 OF 35 WPIDS (C) 2003 THOMSON DERWENT

TI Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation.

AN 2002-098224 [13] WPIDS

AB WO 200198338 A UPAB: 20020226

NOVELTY - A fluorescent protein (I), **F64L**, **E222G**-**GFP** derived from **green fluorescent protein** (**GFP**) or its analog comprising a mutated amino acid at position 1, which lies before a chromophore and a mutation at position 222 having a glutamic acid, and when expressed in cells incubated at 30 deg. C, has an excitation maximum at a higher wavelength and increased fluorescence, compared to wild-type **GFP**, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a fusion compound (II) consisting of (I) linked to a polypeptide;

(2) a nucleotide sequence (III) coding for (I);

(3) a host cell (IV) transformed with (III); and

(4) preparation of (I), comprising culturing (IV) under expression conditions, and recovering the polypeptide.

USE - (I) is useful in an in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution (claimed). (I) is useful in studying cellular functions in living cells; as a protein tag in living and fixed cells, organelle tag, a secretion marker, genetic reporter or as protein tag in transgenic animals. (I) is also useful as a cell or organelle integrity marker, a marker for changes in cell morphology, as transfection marker and as a marker to be used in combination with fluorescence activated cell sorting (FACS), as real-time probe working at near physiological concentration. The novel proteins can also be used as reporters to monitor live/dead biomass of organisms, such as fungi. (I) is useful as markers useful in transcriptional and translational fusions for performing transposon vector mutagenesis. Transposons encoding (I) are useful for screening promoters, and transposon vectors encoding (I) can be used for tagging plasmids and chromosomes. (I) is useful as a reporter for bacterial detection, by introducing (I) into the genome of bacteriophages. Further, by engineering (I) into genome of a phage, is useful for designing diagnostic tool.

ADVANTAGE - The increased stokes shift of **F64L, E222G-GFP** results in increased spectral resolution of its excitation and emission peaks. This enables more complete band separation using a conventional dichroic beam-splitter, and decreased background signal for assays incorporating **F64L, E222G-GFP** relative to assays based on EGFP (**F64L**, S65T-**GFP**). **F64L, E222G-GFP** fluorescence can be excited by conventional light source using narrow band filters, or commercially available laser producing lines at 472 nm. In either case, the greater stokes shift of **F64L, E222G-GFP** results in lower cross-talk from excitation light to the toe of the emission spectrum. The excitation maximum of **F64L, E222G-GFP** falls midway between those of the cyan fluorescent protein variant (ECFP, excitation max about 433 nm) and the yellow fluorescent protein variant (EYFP, excitation max about 513 nm). Because of this, it will allow for cleaner band separation when used together with those probes, and it is optimized for assay applications in which several **GFP**-labeled components will be multiplexed. Due to strong fluorescence the novel proteins are suitable tags for proteins present at low concentrations. Since no substrate is needed and visualization of the cells does not damage the cells dynamic analysis can be performed. More than one organelle can be tagged and visualized simultaneously in living cells, e.g. the endoplasmic reticulum and the cytoskeleton. By fusion of **F64L-E222G-GFP** to a signal peptide or a peptide to be secreted, secretion may be followed on-line in living cells. A precondition for that is that the maturation of a detectable number of novel fluorescent protein molecules occurs faster than the secretion. Due to strong fluorescence of the novel proteins, they are suitable as tags for proteins and gene expression, since the signal to noise ratio is significantly improved compared to the prior art proteins such as wild-type **GFP**. By co-expressing two of the novel proteins, the one targeted to an organelle and the other expressed in the cytosol, it is possible to calculate the relative leakage of the cytosolic protein and use that as a measure of cell integrity, and expression of the novel proteins in cells allows easy detection of changes in cell morphology, e.g. blebbing, caused by cytotoxic agents or apoptosis. The morphological changes are difficult to visualize in intact cells without the use of fluorescent probes. Due to the increased brightness of the novel proteins the quality of the cell detection and sorting can be significantly improved. Since **F64L-E222G-GFP** is significantly brighter than wild-type **GFP** and **F64L-GFP** when expressed in cells at 37 deg. C and excited with light at about 490 nm, the concentration needed for visualization can be lowered. Target sites for enzymes engineered into the novel proteins e.g. **F64L-E222G-GFP**, can therefore be present in the cell at low concentrations in living cells. This is important for the two reasons, i.e. the probe must interfere as little as possible with the

intracellular process being studied; the translational and transcriptional apparatus should be stressed minimally. By constitutive expression of **F64L-E222G-GFP** in fungi the viable biomass will light up.
Dwg.0/5

ACCESSION NUMBER: 2002-098224 [13] WPIDS
DOC. NO. CPI: C2002-030678
TITLE: Novel fluorescent protein in in vitro assay for measuring protein kinase activity or dephosphorylation activity, or for measuring protein redistribution, has a **green fluorescent protein** with **F64L** and **E222G** mutation.
DERWENT CLASS: B04 D16
INVENTOR(S): BJORN, S P; PAGLIARO, L; THASTRUP, O
PATENT ASSIGNEE(S): (BIOI-N) BIOIMAGE AS; (BJOR-I) BJORN S P; (PAGL-I) PAGLIARO L; (THAS-I) THASTRUP O
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001098338	A2	20011227	(200213)*	EN	41
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001079669	A	20020102	(200230)		
US 2002177189	A1	20021128	(200281)		
EP 1299414	A2	20030409	(200325)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2001098338	A2		WO 2001-EP6848	20010618
AU 2001079669	A		AU 2001-79669	20010618
US 2002177189	A1	Provisional	US 2000-212681P	20000620
		Provisional	US 2001-290170P	20010510
			US 2001-887784	20010619
EP 1299414	A2		EP 2001-957861	20010618
			WO 2001-EP6848	20010618

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001079669	A	Based on	WO 200198338
EP 1299414	A2	Based on	WO 200198338

PRIORITY APPLN. INFO: US 2001-290170P 20010510; DK 2000-953 20000619; US 2000-212681P 20000620; DK 2001-739 20010510

L12 ANSWER 35 OF 35 WPIDS (C) 2003 THOMSON DERWENT
TI New long wavelength engineered fluorescent proteins, useful as markers for gene expression, tracers of cell lineage or as fusion tags to monitor protein localization, or in detection assays, e.g. immunoassays or hybridization assays.
AN 2002-083084 [11] WPIDS
CR 1998-159454 [14]

AB WO 200190147 A UPAB: 20030320
NOVELTY - A functional engineered fluorescent protein (I), whose is substantially identical to the amino acid sequence of Aequorea **green fluorescent protein** (A-**GFP**) having a 238 residue amino acid sequence (I-a), fully defined in the specification, is new.

DETAILED DESCRIPTION - A functional engineered fluorescent protein (I), whose is substantially identical to the amino acid sequence of Aequorea **green fluorescent protein** (A-**GFP**) having a 238 residue amino acid sequence (I-a), fully defined in the specification, is new. (I) has an amino acid sequence that:

(a) differs from (I-a) by at least the amino acid substitution T203X; or

(b) differs from (I-a) by at least an amino acid substitution at L42, V61, T62, V68, Q69, Q94, N121, Y145, H148, V150, F165, 1167, Q183, N185, L220, E222 (not **E222G**) or V224.

(I) has a different fluorescent property than A-**GFP**.

X = an aromatic amino acid selected from H, Y, W or F.

INDEPENDENT CLAIMS are also included for the following:

(1) nucleic acid molecules comprising a nucleotide sequence encoding (I);

(2) expression vectors comprising expression control sequences operatively linked to the nucleic acid molecule comprising a sequence encoding (I);

(3) host cells comprising:

(a) recombinant host cells comprising the expression vectors; or

(b) (I) whose amino acid sequence differs from (I-a) by at least one first substitution at position T203, and at least one second substitution at position H148;

(4) fluorescently labeled antibodies comprising antibodies coupled to (I);

(5) nucleic acid molecules comprising nucleotide sequences encoding the antibodies fused to nucleotide sequences encoding (I);

(6) fluorescently labeled nucleic acid probes comprising a nucleic acid probes coupled to (I);

(7) determining if a mixture contains a target comprising:

(a) contacting the mixture with the fluorescently labeled probes; and

(b) determining if the target has bound to the probe;

(8) engineering (I), which has a fluorescent property different from A-**GFP**;

(9) producing fluorescence resonance energy transfers;

(10) protein comprising (I), where the crystal diffracts with at least a 2.0-3.0 Angstrom resolution;

(11) a computational method of designing a fluorescent protein;

(12) a computational method of modeling the three dimensional structure of a fluorescent protein by determining a three dimensional relationship between at least two atoms listed in the atomic coordinates fully described in the specification;

(13) a device comprising a storage device and, stored in the device, at least 10 atomic coordinates selected from those atomic coordinates fully listed in the specification;

(14) identifying a test chemical, comprising:

(a) contacting a test chemical with a sample containing a biological entity labeled with (I) or a polynucleotide encoding (I); and

(b) detecting fluorescence of (I);

(15) determining the presence of an anion of interest in a sample, comprising:

(a) introducing (I) into a sample; and

(b) determining the fluorescence of (I); and

(16) screening the effects of test compounds on ion channel activity.

USE - (I) is useful as markers for gene expression, tracers of cell lineage or as fusion tags to monitor protein localization within living cells. (I) is particularly useful for coupling engineered fluorescent proteins to antibodies, nucleic acids or other receptors for use in

detection assays, e.g. immunoassays or hybridization assays. (I) is also useful for tracking the movement of proteins in cells, or in systems for detecting induction of transcription. (I) is particularly useful for the simultaneous measurement of two or more processes within cells and is also useful as fluorescent energy donors or acceptors, as well as biosensors for detecting anions. (I) is also useful in fluorescence resonance energy transfer (FRET). The crystal structure of the green fluorescent protein is useful for designing mutants having altered fluorescent characteristics. This is particularly useful in identifying amino acids whose substitution alters fluorescent properties of the protein. The crystal structure of the green fluorescent protein is also useful for designing mutants having altered anion binding characteristics. This is particularly useful for identifying amino acids whose substitution alters the specificity and affinity of the binding site to various anions, and for monitoring anion binding and therefore the concentration of the anion.

ADVANTAGE - The present engineered fluorescent protein has varied fluorescent properties and has the ability to respond to ion concentrations via a change in fluorescent characteristics. The functional engineered fluorescent proteins with varied fluorescent characteristics can be easily distinguished from currently existing green and blue fluorescent proteins. The engineered fluorescent proteins enable the simultaneous measurement of two or more processes within cells and can be used as fluorescent energy donors or acceptors, as well as biosensors for detecting anions. The present engineered fluorescent proteins are particularly useful because photodynamic toxicity and auto-fluorescence of cells are significantly reduced at longer wavelengths. In particular, the introduction of the substitution T203X, where X is an aromatic amino acid, results in an increase in the excitation and emission wavelength maxima of Aequorea-related fluorescent proteins. Another primary advantage of fluorescent protein fusion proteins is that they are prepared by normal protein biosynthesis, thus completely avoiding organic synthesis and the requirement for customized unnatural amino acid analogs.

Dwg.0/15

ACCESSION NUMBER: 2002-083084 [11] WPIDS
CROSS REFERENCE: 1998-159454 [14]
DOC. NO. CPI: C2002-025219

TITLE: New long wavelength engineered fluorescent proteins, useful as markers for gene expression, tracers of cell lineage or as fusion tags to monitor protein localization, or in detection assays, e.g. immunoassays or hybridization assays.

DERWENT CLASS: B04 D16

INVENTOR(S): REMINGTON, S J; WACHTER, R
PATENT ASSIGNEE(S): (UYOR-N) UNIV OREGON HEALTH SCI; (UYOR-N) UNIV OREGON STATE

COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001090147	A2	20011129	(200211)*	EN	181

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001063269 A 20011203 (200221)
EP 1285065 A2 20030226 (200319) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001090147	A2	WO 2001-US16149	20010517
AU 2001063269	A	AU 2001-63269	20010517
EP 1285065	A2	EP 2001-937550	20010517
		WO 2001-US16149	20010517

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001063269	A	Based on	WO 200190147
EP 1285065	A2	Based on	WO 200190147

PRIORITY APPLN. INFO: US 2000-575847 20000519